

REMARKS

Formal Matters

Claims 19-26, 38-42, and 46 are pending in the instant application, and are listed on page 2 of this paper for convenient reference.

In view of the following remarks, the Applicants respectfully request reconsideration of Claims 19-26, 38-42, and 46, the only claims under examination in the instant application.

Claim Rejections- 35 U.S.C. § 103(a)

In the Office Action dated December 27, 2007, Claims 19-21, 23, 26, 38 and 46 of the instant application were rejected by the Examiner under 35 U.S.C. § 103(a) as allegedly obvious over Cassin et al. (US 5,910,287; filing date June 3, 1977; hereafter Cassin) in view of Gilby, et al. (US 6,239,871; filing date Aug. 24, 1999; hereafter Gilby).

It is stated in the M.P.E.P § 2143 that in order to establish a *prima facie* case of obviousness, the following criteria must be met:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Applicants respectfully submit that Claims 19-21, 23, 26, 38 and 46 of the instant application are not obvious over the cited references, as the teaching and suggestion for embodiments of a microcard of Claims 19-21, 23, 26, 38 and 46 are found in the Applicant's disclosure, and not in the cited references. Further, the combination of Cassin and Gilby teach away from embodiments of a microcard of Claims 19-21, 23, 26, 38 and 46.

In the Action, it is stated the Cassin teaches a multi-well plate comprising a lid on top of the plate and lenses formed in the bottom of the wells of the plate, which lenses facilitate fluorescence measurements. It is further stated that the multi-well plate of Cassin differs from

embodiments of a microcard of Claims 19-21, 23, 26, 38 and 46 of the instant application in that Cassin does not disclose aplanatic lenses.

Briefly, the teaching of Cassin relates to the use of cycloolefin polymers as materials for use in the fabrication of multi-well plates. The cycloolefin polymers provide for multi-well plates having low fluorescent backgrounds and high transmittance of light from an excitation source. Cassin teaches that, given the optical properties of cycloolefin polymers, such polymers can be used to fabricate a lens in a well bottom, which detection from the bottom of wells of a multi-well plate was known at the time of the filing of Cassin. There is no teaching in Cassin for any particular lens design at all, since the teachings are directed to the use of a material, not to the design of multi-well plates.

As such, the assertion in the Action that Cassin differs from the instant application only in the absence of the teaching of an aplanatic lens is incorrect. Cassin does not teach or suggest embodiments of a microcard having a plurality of well lenses, where the well lenses have a rounded portion and a projection that extends into the sample. The teaching and suggestion for embodiments of a microcard of Claims 19-21, 23, 26, 38 and 46 of the instant application are found in the instant application, not in the Cassin.

Further, Gilby does not overcome the deficiency of Cassin to teach embodiments of a microcard of Claims 19-21, 23, 26, 38 and 46 of the instant application with a plurality of well lenses that have a rounded portion and a projection that extends into the sample. Gilby teaches the use of a hyper-hemispheric or hemispheric lens piece external to a capillary of cell. The externally positioned lens is in proximity to the exterior of a capillary or cell, and therefore not in contact with the sample. As such, Gilby does not teach or suggest embodiments of a microcard having a plurality of well lenses, where the well lenses have a rounded portion and a projection that extends into the sample. Such teachings and suggestions are found in the instant application and not in Gilby. Moreover, the combination of a the multi-well plate of Cassin and the externally positioned lens of Gilby teaches away from embodiments of a microcard of Claims 19-21, 23, 26, 38 and 46 of the instant application having a plurality of well lenses that have a rounded portion and a projection that extends into the sample.

Therefore, neither Cassin nor Gilby, either separately or in combination teach or suggest embodiments of a microcard of Claims 19-21, 23, 26, 38 and 46 of the instant application. All such teachings and suggestions are found in the instant application, not in the cited references, and the combination of Cassin and Gilby teaches away from claimed embodiments of a

microcard of the instant application. Accordingly, no *prima facie* case of obviousness has been established, and the Applicants respectfully request that the rejection be withdrawn.

In the Action, for the rejection of dependent Claims 22, 24, 25, and 40-42, tertiary references were cited in combination with Cassin and Gilby. The tertiary references have been reviewed, and none overcome the deficiencies of Cassin and Gilby. Accordingly, no *prima facie* case of obviousness has been established for the dependent Claims 22, 24, 25, and 40-42, and the Applicants respectfully request that the rejection of these claims be withdrawn.]

In the Action, Claims 19 and 39 of the instant application were rejected by the Examiner under 35 U.S.C. § 103(a) as allegedly obvious over Cassin et al. (US 5,910,287; filing date June 3, 1977; hereafter Cassin) in view of Schroeder, et al. (US 5,355,215; filing date Oct. 11, 1994; hereafter Schroeder) as evidenced by Claytor (US 4,787, 722; filing date Nov. 29, 1988). It is stated in the Action that Cassin teaches all aspects of the embodiments of a microcard of Claims 19 and 39, with the exception of a Fresnel lens. For that element, the Examiner looks to Schroeder and Claytor.

The Applicants respectfully submit that Claims 19 and 39 of the instant application are not obvious over the cited references, as the teaching and suggestion for embodiments of a microcard of Claims 19 and 39 are found in the Applicant's disclosure, and not in the cited references. Further, the combination of Cassin and Schroeder teaches away from embodiments of a microcard of Claims 19 and 39.

As presented in the remarks above, the Applicants respectfully submit that Cassin is deficient in the teachings and suggestions of embodiments of a microcard of Claims 19 and 39, which micro card has a plurality of well lenses that have a rounded portion and a projection that extends into the sample. Additionally, neither Schroeder nor Claytor make up the deficiency of Cassin.

Schroeder teaches methods apparatuses of detecting fluorescence from the well bottoms of wells in a multi-well plate, where the source and detector are positioned at a first and second angle in order to minimize background fluorescence in the sample, as well as eliminating cross talk between the wells. In addition to the positioning of the source and detector, Schroeder teaches the use of a mask, holographic optical element (HOE), or Fresnel lens (e.g. element 30 of Fig. 4 or element 50 of Fig. 5). The sheet-like illumination control element; either the mask, HOE, or Fresnel lens of Schroeder is, interposed between the light source and the wells for illumination control of the source. As such, the external mask, HOE, or

Fresnel lens of Schroeder is not in contact with the sample. This is in contrast to embodiments of a microcard of Claims 19 and 39, which embodiments have a plurality of well lenses of a microcard that have a rounded portion and a projection that extend into the sample.


Therefore the teachings and suggestions of embodiments of a microcard of Claims 19 and 39 are found in the instant application and not in Schroeder. As Claytor teaches a Fresnel lens formed of an infrared transmitting material, Claytor does not overcome the deficiencies of Cassin and Schroeder to teach or suggest embodiments of a microcard of Claims 19 and 39. Moreover, the combination of a the multi-well plate of Cassin and the externally positioned mask, HOE, or Fresnel lens of Schroeder teach away from embodiments of a microcard of Claims 19 and 39 of the instant application having a plurality of well lenses that have a rounded portion and a projection that extends into the sample. Accordingly, no *prima facie* case of obviousness has been established, and the Applicants respectfully request that the rejection be withdrawn.

CONCLUSION

The Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this case, the Examiner is invited to contact me at the telephone number listed below.

Respectfully submitted,

Date: July 27, 2007



Sally A. Swedberg, Ph.D.
Reg. No. 53,659
Agent for Applicants

CORRESPONDENCE ADDRESS

Customer Number: 22896
APPLERA CORPORATION
Applied Biosystems Group
Patent Department – M/S 432-2
850 Lincoln Centre Drive
Foster City, California 94404
TEL: 650-554-2863
FAX: 650-638-6677